



Comparative Table: Greenfield® vs. Merck SenseHub® Dairy Collars

| Feature / Function | Greenfield® Smart Dairy Collar | Merck SenseHub® Dairy Collar |
|-------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------|
| Global Positioning (GPS) | ✓ Real-time GPS tracking with geofencing, movement history, escape alerts | ✗ Not available |
| Posture & Feeding Behavior | ✓ Detailed posture monitoring (standing, lying, eating, ruminating) | ✓ Behavior monitoring (eating, ruminating, resting) |
| Body Temperature | ✓ Continuous internal/external temperature measurement | ✗ Not included |
| Rumination Monitoring | ✓ Advanced rumination cycle tracking for digestive health | ✓ Rumination tracking |
| Body Movement Patterns | ✓ Gyroscope & accelerometer detect abnormal movements, falls, stress | ✓ General activity monitoring |
| Activity Level & Step Count | ✓ Daily steps and energy expenditure metrics | ✓ Activity patterns, but no precise step count |
| Gait Analysis (Lameness Detection) | ✓ Early detection of locomotion issues and lameness | ✗ Not available |
| Heat & Reproduction Detection | ✓ Advanced algorithms combining multiple parameters | ✓ Accurate heat detection, insemination timing |
| Health & Early Alerts | ✓ Multi-sensor data for disease, fever, distress, fresh cow reports | ✓ Early health alerts, distress reports |
| Group Monitoring / Analytics | ✓ Group trends: feeding, heat stress, nutrition response | ✓ Group trends and reports |
| Milking System Integration | ✓ Sorting gates, parlor integration, automation compatibility | ✓ Sorting gates, parlor integration |
| Youngstock Monitoring | ✓ Monitoring calves and heifers with same collar | ✓ Separate solution: SenseHub Youngstock ear tags |
| Scalability & Flexibility | ✓ From small to >10,000 cows, modular upgrades | ✓ From small to >15,000 cows, modular upgrades |

| Feature / Function | Greenfield® Smart Dairy Collar | Merck SenseHub® Dairy Collar |
|----------------------------------|-----------------------------------------------------------------|------------------------------------------------------|
| Device Options | ✓ Mainly collar, hybrid GPS/anti-theft | ✓ Ear tags, neck collars, hybrid options |
| Milk Production Modules | ✓ Optional integration with milk sensors | ✓ Optional integration with milk sensors |
| Cloud Platform & Dashboards | ✓ Mobile & PC alerts, predictive analytics, AI-based forecasts | ✓ Cloud dashboards, reports, predictive analytics |
| Customer Support & Training | ✓ 24/7 support, training, software compatibility | ✓ Lifetime training, support, software compatibility |
| Payment Models | ✓ Purchase or subscription, flexible plans | ✓ Purchase or subscription models |
| Anti-Theft System | ✓ Integrated anti-theft alarms + GPS geofence | ✗ Not available |
| LED Visual ID | ✓ LED tag for animal identification | ✓ LED tag for animal identification |
| Predictive AI & Machine Learning | ✓ Algorithms forecast diseases, fertility, and production risks | ✓ Predictive analytics mainly for heat & health |

Greenfield® clearly differentiates itself with **GPS tracking, body temperature, step counting, gait analysis, and an anti-theft system.**

🔍 **Merck SenseHub®** maintains a strong position in large-scale herd management and reproduction monitoring but lacks Greenfield's **security and advanced movement features.**